

**Amendments to the Claims:**

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An exhaust purification device for an internal combustion engine designed to purify NO<sub>x</sub> generated when burning fuel under a lean air-fuel ratio by an exhaust purification catalyst arranged in an exhaust passage, said the exhaust purification device using as a catalyst carrier of said the exhaust purification catalyst a carrier having base points on the a carrier surface, surface of the catalyst carrier, the catalyst carrier carrying a precious metal catalyst dispersed on the carrier surface without forming a layer of a NO<sub>x</sub> absorbent able to absorb NO<sub>x</sub>, and temporarily switching the an air-fuel ratio of the exhaust gas flowing into the exhaust purification catalyst from lean to rich before the entire surface of the precious metal catalyst suffers from oxygen poisoningpoisoning,

the exhaust purification device being provided with means for calculating an amount of oxygen poisoning of the precious metal catalyst based on an oxygen concentration in the exhaust gas and a temperature of the exhaust purification catalyst, the air-fuel ratio of the exhaust gas being switched from lean to rich when the calculated amount of oxygen poisoning exceeds a predetermined allowable value.

2. (Currently Amended) An exhaust purification device for an internal combustion engine as set forth in claim 1, wherein said the catalyst carrier is comprised of alumina.

3. (Withdrawn - Currently Amended) An exhaust purification device for an internal combustion engine as set forth in claim 2, wherein said the catalyst carrier is made to contain inside it an alkali metal, an alkali earth metal, or a rare earth so as to increase the number of base points on the catalyst carrier surface or strengthen the basicity at the base points.

4. (Currently Amended) An exhaust purification device for an internal combustion engine as set forth in claim 1, wherein ~~said~~the precious metal catalyst is platinum.

5. (Original) An exhaust purification device for an internal combustion engine as set forth in claim 1, wherein the oxygen poisoning of the precious metal catalyst is continuously eliminated by the air-fuel ratio of the exhaust gas being repeatedly switched from lean to rich and wherein the ratio of a rich time to a lean time at this time is set to a ratio giving a NO<sub>x</sub> purification rate of 90 percent or more when the temperature of the exhaust purification catalyst is 200°C to 250°C.

6. (Original) An exhaust purification device for an internal combustion engine as set forth in claim 1, wherein the oxygen poisoning of the precious metal catalyst is continuously eliminated by the air-fuel ratio of the exhaust gas being repeatedly switched from lean to rich and wherein the action of switching the air-fuel ratio from lean to rich is prohibited when the temperature of the exhaust purification catalyst is an allowable temperature or more.

7-9. (Cancelled)

10. (Currently Amended) An exhaust purification device for an internal combustion engine as set forth in claim 1, wherein ~~said~~the device is further provided with means for judging if the oxygen poisoning of the precious metal catalyst has been eliminated and wherein the air-fuel ratio of the exhaust gas is switched from rich to lean when it is judged that the oxygen poisoning of the precious metal catalyst has been eliminated.

11. (Currently Amended) An exhaust purification device for an internal combustion engine as set forth in claim 10, wherein ~~said~~the device is further provided with an air-fuel ratio sensor for detecting an air-fuel ratio of the exhaust gas flowing out from the exhaust purification catalyst and wherein it is judged that oxygen poisoning of the precious metal catalyst has been eliminated when the air-fuel ratio of the exhaust gas flowing out from

the exhaust purification catalyst becomes rich after the air-fuel ratio of the exhaust gas flowing into the exhaust purification catalyst is switched from lean to rich.

12. (Original) An exhaust purification device for an internal combustion engine as set forth in claim 1, wherein the NO<sub>x</sub> and SO<sub>x</sub> contained in the exhaust gas are oxidized by the precious metal catalyst in the exhaust purification catalyst, then held on the catalyst carrier.

13. (Original) An exhaust purification device for an internal combustion engine as set forth in claim 12, wherein the NO<sub>x</sub> held on the catalyst carrier is released from the catalyst carrier and reduced when the air-fuel ratio of the exhaust gas flowing into the exhaust purification catalyst is temporarily switched from lean to rich to eliminate the oxygen poisoning of the precious metal catalyst.

14. (Currently Amended) An exhaust purification device for an internal combustion engine as set forth in claim 12, wherein the strength of the-a basicity of the surface of the catalyst carrier is set to a strength by which the SO<sub>x</sub> is held on the surface of the catalyst carrier in the form of sulfate ions.

15. (Original) An exhaust purification device for an internal combustion engine as set forth in claim 14, wherein when getting the SO<sub>x</sub> held on the surface of the catalyst carrier released from the surface of the catalyst carrier, the temperature of the exhaust purification catalyst is made to rise to the SO<sub>x</sub> release temperature, then the air-fuel ratio of the exhaust gas is made rich while the temperature of the exhaust purification catalyst is maintained at the SO<sub>x</sub> release temperature, and the SO<sub>x</sub> release temperature is about 500°C to 550°C.

16. (Withdrawn - Currently Amended) An exhaust purification device for an internal combustion engine as set forth in claim 1, wherein a particulate filter is arranged in the engine exhaust passage instead of said-the exhaust purification catalyst and the catalyst carrier is coated on the particulate filter.

17. (Withdrawn - Currently Amended) An exhaust purification device for an internal combustion engine as set forth in claim 1, wherein a particulate filter is arranged in the engine exhaust passage and said~~the~~ exhaust purification catalyst is arranged in the exhaust passage upstream or downstream of the particulate filter.

18. (Withdrawn - Currently Amended) An exhaust purification device for an internal combustion engine as set forth in claim 1, wherein the engine exhaust passage has arranged in it a NO<sub>x</sub> selective reducing catalyst having the function of selectively reducing the NO<sub>x</sub> and not having the function of absorbing NO<sub>x</sub> and wherein said~~the~~ exhaust purification catalyst is arranged in the exhaust passage upstream or downstream of said NO<sub>x</sub> selective reducing catalyst.

19. (Withdrawn) An exhaust purification device for an internal combustion engine as set forth in claim 18, wherein the exhaust purification catalyst is arranged in the exhaust passage upstream of the NO<sub>x</sub> selective reducing catalyst, a urea feed valve for feeding a urea aqueous solution is provided in the exhaust passage between the NO<sub>x</sub> selective reducing catalyst and exhaust purification catalyst, the air-fuel ratio of the exhaust gas is repeatedly switched from lean to rich when a high NO<sub>x</sub> purification rate is obtained by the exhaust purification catalyst, and the urea aqueous solution is fed from the urea feed valve when a high NO<sub>x</sub> purification rate is obtained by the NO<sub>x</sub> selective reducing catalyst.

20. (Withdrawn) An exhaust purification device for an internal combustion engine as set forth in claim 1, wherein a NO<sub>x</sub> storing catalyst, forming on the surface of the carrier a layer of a NO<sub>x</sub> absorbent able to absorb NO<sub>x</sub> under a lean air-fuel ratio and carrying a precious metal catalyst dispersed on it, is arranged in the engine exhaust passage in series with said exhaust purification catalyst, the air-fuel ratio of the exhaust gas flowing into the exhaust purification catalyst is temporarily switched from lean to rich before the entire surface of the precious metal catalyst carried on the carrier surface of the exhaust purification catalyst suffers from oxygen poisoning when the NO<sub>x</sub> in the exhaust gas is mainly being

purified by the exhaust purification catalyst, and the air-fuel ratio of the exhaust gas flowing into the NO<sub>x</sub> storing catalyst is temporarily switched from lean to rich before the NO<sub>x</sub> storing capability of the NO<sub>x</sub> storing catalyst becomes saturated when the NO<sub>x</sub> in the exhaust gas is mainly being purified by the NO<sub>x</sub> storing catalyst.

21. (Withdrawn) An exhaust purification device for an internal combustion engine as set forth in claim 20, wherein the NO<sub>x</sub> in the exhaust gas is mainly purified by the exhaust purification catalyst when a temperature of the exhaust purification catalyst is in a first temperature region, and the NO<sub>x</sub> in the exhaust gas is mainly purified by the NO<sub>x</sub> storing catalyst when a temperature of the NO<sub>x</sub> storing catalyst is in a second temperature region at a side higher than said first temperature region.

22. (Withdrawn) An exhaust purification device for an internal combustion engine as set forth in claim 21, wherein it is judged that the temperature of the exhaust purification catalyst is in the first temperature range when a representative temperature representing the temperature of the exhaust purification catalyst and the temperature of the NO<sub>x</sub> storing catalyst is lower than a predetermined set temperature, it is judged that the temperature of the NO<sub>x</sub> storing catalyst is in the second temperature range when said representative temperature is higher than the predetermined set temperature, the air-fuel ratio of the exhaust gas flowing into the exhaust purification catalyst is temporarily switched from lean to rich before the entire surface of the precious metal catalyst carried on the carrier surface of the exhaust purification catalyst suffers from oxygen poisoning when it is judged that the temperature of the exhaust purification catalyst is in the first temperature region, and the air-fuel ratio of the exhaust gas flowing into the NO<sub>x</sub> storing catalyst is temporarily switched from lean to rich before the NO<sub>x</sub> storing capability of the NO<sub>x</sub> storing catalyst becomes saturated when it is judged that the temperature of the NO<sub>x</sub> storing catalyst is in the second temperature region.

23. (Withdrawn) An exhaust purification device for an internal combustion engine as set forth in claim 20, wherein the NO<sub>x</sub> absorbent carried on the surface of the carrier of the NO<sub>x</sub> storing catalyst is comprised of an alkali metal, an alkali earth metal, or a rare earth.

24. (Withdrawn) An exhaust purification device for an internal combustion engine as set forth in claim 20, wherein the NO<sub>x</sub> and SO<sub>x</sub> contained in the exhaust gas are absorbed in the NO<sub>x</sub> absorbent carried on the surface of the carrier of the NO<sub>x</sub> storing catalyst under a lean air-fuel ratio.

25. (Withdrawn) An exhaust purification device for an internal combustion engine as set forth in claim 24, wherein the device is provided with means for calculating an amount of NO<sub>x</sub> absorbed in the NO<sub>x</sub> absorbent and wherein the air-fuel ratio of the exhaust gas is switched from lean to rich when the calculated amount of NO<sub>x</sub> absorbed exceeds a predetermined allowable value.

26. (Withdrawn) An exhaust purification device for an internal combustion engine as set forth in claim 24, wherein said device is further provided with means for estimating an amount of NO<sub>x</sub> absorbed in the NO<sub>x</sub> absorbent and wherein the air-fuel ratio of the exhaust gas is switched from lean to rich when the estimated amount of the NO<sub>x</sub> absorbed exceeds a predetermined allowable value.

27. (Withdrawn) An exhaust purification device for an internal combustion engine as set forth in claim 24, wherein said device is further provided with a NO<sub>x</sub> concentration sensor for detecting the concentration of NO<sub>x</sub> in exhaust gas flowing out from the NO<sub>x</sub> storing catalyst and wherein it is judged that the amount of NO<sub>x</sub> absorbed of the NO<sub>x</sub> absorbent has exceeded the allowable value when the concentration of NO<sub>x</sub> detected by the NO<sub>x</sub> concentration sensor has exceeded a set value.

28. (Withdrawn) An exhaust purification device for an internal combustion engine as set forth in claim 24, when getting the SO<sub>x</sub> absorbed in the NO<sub>x</sub> absorbent of the

NO<sub>x</sub> storing catalyst released from the NO<sub>x</sub> absorbent, the temperature of the NO<sub>x</sub> storing catalyst is made to rise to the SO<sub>x</sub> release temperature, then the air-fuel ratio of the exhaust gas is made rich while the temperature of the NO<sub>x</sub> storing catalyst is maintained at the SO<sub>x</sub> release temperature, and the SO<sub>x</sub> release temperature is about 600°C or more.

29. (Withdrawn - Currently Amended) An exhaust purification device for an internal combustion engine as set forth in claim 20, wherein the order of arrangement of the exhaust purification catalyst and the NO<sub>x</sub> storing catalyst is determined in accordance with the ~~strength strengths of the basicity basicities of the catalyst catalysts~~ and the catalyst with the stronger basicity is arranged at the upstream side of the catalyst with the weaker basicity.

30. (Withdrawn - Currently Amended) An exhaust purification device for an internal combustion engine as set forth in claim 29, wherein the NO<sub>x</sub> storing catalyst is arranged at ~~the an~~ upstream side of the exhaust purification catalyst.

31. (Withdrawn) An exhaust purification device for an internal combustion engine as set forth in claim 30, wherein an acidic catalyst is arranged at an upstream side of the NO<sub>x</sub> storing catalyst.

32. (Withdrawn) An exhaust purification device for an internal combustion engine as set forth in claim 20, wherein the NO<sub>x</sub> storing catalyst is arranged upstream of the exhaust purification catalyst.

33. (Withdrawn) An exhaust purification device for an internal combustion engine as set forth in claim 32, wherein the NO<sub>x</sub> storing catalyst is comprised of a particulate filter.

34. (Withdrawn) An exhaust purification device for an internal combustion engine as set forth in claim 20, wherein the NO<sub>x</sub> storing catalyst is arranged downstream of the exhaust purification catalyst.

35. (Withdrawn) An exhaust purification device for an internal combustion engine as set forth in claim 34, wherein the NO<sub>x</sub> storing catalyst is comprised of a particulate filter.

36. (Withdrawn) An exhaust purification device for an internal combustion engine as set forth in claim 20, wherein exhaust purification catalysts are arranged upstream and downstream of the NO<sub>x</sub> storing catalyst.

37. (Withdrawn) An exhaust purification device for an internal combustion engine as set forth in claim 36, wherein the NO<sub>x</sub> storing catalyst is comprised of a particulate filter.

38. (Currently Amended) An exhaust purification device for an internal combustion engine as set forth in claim 1, wherein a reducing agent is fed into the ~~engine~~ exhaust passage to make the air-fuel ratio of the exhaust gas rich.

39. (Currently Amended) An exhaust purification device for an internal combustion engine as set forth in claim 1, wherein the engine is an engine which gradually increases ~~in-an~~ amount of generation of soot and reaches a peak when increasing ~~the-an~~ amount of exhaust gas recirculation and no longer generates almost any soot when further increasing the amount of exhaust gas recirculation and wherein the air-fuel ratio of the exhaust gas is made rich by making the air-fuel ratio in ~~the-a~~ combustion chamber of the ~~engine~~ rich in the state where the amount of exhaust gas recirculation is increased over the amount where the amount of generation of soot peaks.

40. (Currently Amended) An exhaust purification device for an internal combustion engine as set forth in claim 1, wherein the engine is an engine which gradually increases ~~in-an~~ amount of generation of soot and reaches a peak when increasing ~~the-an~~ amount of exhaust gas recirculation and no longer generates almost any soot when further increasing the amount of exhaust gas recirculation and wherein the amount of exhaust gas

recirculation is increased over the amount where the amount of generation of soot peaks when the temperature of the exhaust purification catalyst should be raised.

41. (New) An exhaust purification device for an internal combustion engine as set forth in claim 1, wherein the amount of oxygen poisoning of the precious metal catalyst is proportional to the oxygen concentration in the exhaust gas and increases with increasing temperature of the exhaust purification catalyst.